

REMARKS

Claims 5-8 are pending. By this Amendment, claim 5 is amended. Reconsideration in view of the above amendments and following remarks is respectfully requested.

Claim 5 recites a group III nitride compound semiconductor device including a substrate on which a first environment division and a second environment division are formed, and group III nitride compound semiconductor layers formed on the first environment division so as to serve as effective semiconductor layers, wherein the group III nitride compound semiconductor device is produced by a method including, in order, forming the second environment division on a surface of a substrate, forming a mask on a surface of a first portion of the second environment division, removing a second portion of the second environment division on which the mask is not formed to thereby form the first environment division in an area in which the mask is not formed, removing the mask, and laminating a plurality of group III nitride compound semiconductor layers for constituting a device on the first environment division.

Claims 5-7 were rejected under 35 U.S.C. § 102 (b) over Japanese patent publication JP7-273367 (JP 367). The rejection is respectfully traversed.

JP 367 discloses that after a buffer layer 2 is formed on a substrate 1, a mask 3 is formed and its patterning is conducted by lithography. JP 367 thus discloses forming the mask 3 on the entire buffer layer 2, not on a surface of a first portion, as recited in claim 5. Accordingly, JP 367 cannot anticipate or render obvious claim 5.

Claims 6 and 7 recite additional features of the invention and are allowable for the same reasons discussed above with respect to claim 5 and for the additional features recited therein.

Reconsideration and withdrawal of the rejection of claims 5-7 under 35 U.S.C. § 102(b) over JP 367 are respectfully requested.

Claims 5-8 were rejected under 35 U.S.C. § 102(b) over Japanese publication 7-169715 (JP 715). The rejection is respectfully traversed.

It is respectfully submitted that JP 715 suffers from the same deficiencies discussed above with respect to JP 367, in that JP 715 does not disclose or suggest a mask formed on a first portion of a second environment division and a first environment division formed by removing a second portion of the second environment division on which the mask is not formed. Accordingly, JP 715 cannot anticipate or render obvious claim 5.

Claims 6-8 recite additional features of the invention and are allowable for the same reasons discussed above with respect to claim 5 and for the additional features recited therein.

Reconsideration and withdrawal of the rejection of claims 5-8 over JP715 are respectfully requested.

Claims 5-7 were rejected under 35 U.S.C. § 102(b) over Japanese publication 7-122520 (JP 520). The rejection is respectfully traversed.

JP 520 discloses a gallium nitride compound semiconductor chip in which a gallium nitride compound semiconductor 2 is selectively allowed to grow on a sapphire substrate 1 where a protection film 11 is formed and the gallium nitride semiconductor wafer is cut from a part where the protection film 11 is formed for separation into a chip. The gallium nitride semiconductor 2 is selectively allowed to grow after the protection film 11 is formed in the desired chip and line shape where the gallium nitride compound does not grow.

There is no disclosure or suggestion by JP 520 of a second environment division formed on a surface of a substrate and a mask formed on a first portion of the second environment division, as recited in claim 5. The protection film 11 of JP 520 is formed directly on the sapphire substrate 1, not on a second environment division.

Claims 6 and 7 recite additional features of the invention and are allowable for the same reasons discussed above with respect to claim 5 and for the additional features recited therein.

Reconsideration and withdrawal of the rejection of claims 5-7 under 35 U.S.C. § 102(b) over JP520 are respectfully requested.

Claims 5-7 were rejected under 35 U.S.C. § 102(e) over Sverdlov (U.S. Patent 6,266,355). The rejection is respectfully traversed.

Sverdlov does not disclose or suggest a second environment division formed on a surface of a substrate. The dielectric portion 32 of Sverdlov is formed on the buffer layer 14, not on the substrate 12. In addition, there is no disclosure or suggestion by Sverdlov of a mask formed on a surface of a first portion of the second environment division. As shown in Figure 4 of Sverdlov, the grooves 33 are formed entirely through the dielectric 32, not on a surface of a first portion of the dielectric 32. Finally, there is no disclosure or suggestion by Sverdlov of a second portion of the second environment division on which a mask is not formed being removed to thereby form a first environment division, as recited in claim 5. As discussed above, the grooves 33 are formed entirely through the dielectric 32 of Sverdlov.

Thus, Sverdlov does not disclose a first portion of the dielectric 32 having a mask formed therein and a first environment division formed in the dielectric 32 in an area in which the mask is not formed, as recited in claim 5.

Claims 6 and 7 recite additional features of the invention and are allowable for the same reasons as discussed above with respect to claim 5 and for the additional features recited therein.

Reconsideration and withdrawal of the rejection of claims 5-7 under 35 U.S.C. § 102(3) over Sverdlov are respectfully requested.

In view of the above amendments and remarks, Applicants respectfully submit that all of the claims are allowable and that the entire application is in condition for allowance.

Should the Examiner believe that anything further is desirable to place the application in better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number listed below.

Respectfully submitted,

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Enclosure: Appendix

APPENDIX
VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS:

Claim 5 has been amended as follows:

5. (Amended) A group III nitride compound semiconductor device comprising:
a substrate on which a first environment division and a second environment division
are formed; and

group III nitride compound semiconductor layers formed on said first environment
division so as to serve as effective semiconductor layers, wherein the group III nitride
compound semiconductor device is produced by a method comprising, in order:

forming the second environment division on a surface of a substrate;

forming a mask on a surface of a first portion of the second environment division;

removing a second portion of the second environment division on which the mask is
not formed to thereby form the first environment division in an area in which the mask is not
formed;

removing the mask; and laminating a plurality group III nitride compound
semiconductor layers for constituting a device on said first environment division.